TOWN OF WESTERLY, RHODE ISLAND

PROPERTY MANAGEMENT PLAN

FOR

POTTER HILL OPEN SPACE

also known as

"WESTERLY TOWN FOREST"

Westerly Planning Office
Town Hall
45 Broad Street
Westerly, Rhode Island 02891

December, 1990

TABLE OF CONTENTS

Page Number

1.1		1 2
2.0		2 3
3.0	Property Use	3
4.0	Access	3
5.0	Prohibited Uses	3
6.0	6.1 Police Surveillance	4 4 5 5 6 6
7.0	7.1 informational leaflet	6 6 7
8.0	8.1 Common Plant Species	7 7 7 8 8
9.0	Special Protection Considerations	8
10.0	Management Plan and Schedule and Periodic Review	9
Appe	ndix A, Property Map	I
Appe	ndix B, Topographical Map I	I
Appe	ndix C, Forestry PlansII	I

1.1 OVERVIEW.

The property described in this management plan consists of a 251 acre tract of land called the Potter Hill Open Space. The first 204 acres of this property was purchased by the Town of Westerly, Rhode Island with funds made available under Rhode Island Public Law 419, 1986, entitled, "Open Space and Agricultural Land Conservation", in cooperation with the Rhode Island Department of Environmental Management. The Town is proposing to purchase an additional 47 acres of adjacent land to increase the management area which the Town already owns.

The intent of the open space program is to keep parcels of land in the open space and undeveloped categories and to actively manage those lands for multiple uses. The purpose of this management plan is to insure that the designated open space property will be kept in perpetuity as open space land, preserving its ecological and scenic values.

The site is bounded on the north side by the Pawcatuck River, on the south side by Laurel Avenue, and on the east side by Potter Hill Road and consists of a portion of five lots presently listed in the Westerly Land Records as follows:

```
Plat 1 Portions of Lot # 1, # 2, and # 3
Plat 6 Lot # 7
Plat 8 Lot # 3,
Plat 12 Lots # 2 and # 3
```

(Details pertaining to the site boundaries and location are provided in Appendix A, Property Maps and Appendix B, Topographical maps).

Many of the various plant species that make the site exceptional are sensitive to even slight changes in environment. The area also provides habitat for a number of wildlife species. Special care must be taken to assure that the delicate natural balance of the site is maintained. This document defines a formal management plan that is designed to ensure that the site is kept, in perpetuity, as open space in its natural state, preserving its ecological and scenic value.

1.1 OBJECTIVE AND GOALS.

The objectives of this plan are to provide multiple use management, which includes the management of wildlife, watershed protection, providing passive recreation and environmental education, along with forest management practices for the entire 251 acre parcel. The additional open space is being acquired to achieve three major goals:

- 1. Protection of one of the remaining major wildlife habitat area in Westerly,
- 2. protection of land encompassing part of the aquifer recharge area of the Pawcatuck River contributing to the Town's wellfields, and,
- 3. to increase the area of the existing open space property to provide a larger contiguous forested land for wildlife habitat and passive recreation.

1.2 PUBLIC USE.

Public access to the Potter Hill Open Space will be limited. To maintain the major goals of this plan, only passive recreational and environmental educational activities will be encouraged. The Town of Westerly will not provide for motor vehicle access and parking, or active recreational use of the property.

2.0 PROPERTY MAINTENANCE.

Presently much of the Potter Hill Open Space property is forest land. The Town intends to manage the forest lands in accordance with the attached Forestry Plans prepared by Bruce Payton of the Rhode Island Department of Environmental Management, Division of Forestry in Appendix C.

A Town Forest Management Committee has been created by the Town Council to implement the goals and objectives of this plan and to oversee the property maintenance. The Environmental Coordinator/Town Planner and Conservation Commission shall assist the Town Forest Management Committee with the development of management strategies and actions for the property. The Westerly Department of Public Works will be responsible for the maintenance of the property through the Town Manager and the Town Forest Management Committee. Funds for necessary maintenance will come from local appropriations.

2.1 MANAGEMENT RESPONSIBILITY.

The Town Forest Management Committee and the Westerly Department of Public Works shall also solicit the advisory assistance of various town employees, town Committees or boards, or local and state organizations with expertise in disciplines such as forestry, botany, wildlife management, soil science, etc. to implement the goals and objectives of this plan.

3.0 PROPERTY USE.

The property shall be used for passive recreation (ie: nature walks) and environmental educational purposes only. Access by the general public for the purpose of observing the various natural features is allowed and encouraged.

4.0 ACCESS.

The site may be accessed from Potter Hill Road at a marked entrance to the primary access path located across from Pole # 11. In order to protect the various rare and fragile plant species, site access is to be limited to designated footpaths.

Other than official vehicles, such as fire apparatus, police vehicles, and maintenance vehicles, no motorized or other vehicles are allowed anywhere on the site. Official vehicles are limited to the primary access path.

5.0 PROHIBITED ACTIVITIES.

The following activities are specifically prohibited:

- o Cycling,
- o Boating or canoeing,
- o Horseback riding,
- Walking or running on other than assigned footpaths, except for management-related activities,
- o Swimming,
- o Skiing, sledding, skating,

- o Fishing,
- o Hunting,
- o Trapping,
- o Camping,
- o Fires (including campfires),
- o Littering,
- o Sound-amplified devices,
- o Removing any matter (organic or mineral), except as required for property maintenance,
- o Planting or transplanting of any vegetation, except as required for property maintenance,
- o Collecting plants, plant parts or plant products, except as required for property maintenance,
- o Timber harvesting, except as required for property maintenance,
- o Soil grading or excavating, except as required for property maintenance,
- o Soil draining,
- o Soil paving or oiling,
- o Fabricating or placing of structures of any kind.

6.0 MANAGEMENT ACTIVITIES.

6.1 Police Surveillance.

Daily police surveillance of the site shall be provided by the Westerly Police Department.

6.2 General Surveillance.

General surveillance of the site shall be provided by the Environmental Coordinator/Town planner in conjunction with the Town Forest Management Committee. General surveillance includes, but is not necessarily limited to, the following:

- o Inventory update of plant species, animal species, or other natural features,
- o Verification of the general health of plant and animal species,
- o Verification and report of fires,
- o Reporting damage or potential for damage to the property or its natural features,
- o Reporting violations of site regulations and illegal activities,
- o Identification and reporting of site-maintenance needs,
- o Identification of practices that would improve the management function

6.3 Scheduling of Activities.

Organized activities at the site such as nature walks, botanical field studies, etc., shall be scheduled by the Chairperson of the Town Forest Management Committee with the assistance of the Conservation Commission and other local environmental agencies.

6.4 Fire Control and Regulation

All fires on the site shall be promptly extinguished using methods that will minimize overall damage to vegetation. Fire control and regulation are the responsibility of the state and local fire-protection authorities.

The property shall be maintained in its natural state. Maintenance activities shall generally be conducted on an as-needed basis by persons or organizations designated and supervised by the Town' Public Works Department and approved by the Town Forest Management Committee. Associated maintenance costs are estimated at \$2,500 per year. Funding shall be allocated for this purpose from the Westerly municipal budget. Specific maintenance activities are listed in Sections 6.5.1 - 6.5.3.

6.5.1 Litter Removal.

Litter is defined as materials that do not naturally occur at the site. Naturally occurring materials such as fallen trees, stones, leaves, etc., shall not be included in litter removal activities but will be included in regular maintenance activities. Historically, minimal accumulation of litter has occurred at the site and has generally been along the primary access path. It is not anticipated that the accumulation rate will change significantly. Litter removal shall be the responsibility of the Town and shall be conducted at least once every month by the Public Works Department or agencies designated by the Town Forest Management Committee.

6.5.2 Footpath Maintenance.

Footpaths once established, shall be maintained by community assistance agencies designated by the Town Forest Management Committee, or the Department of Public works. Footpath maintenance shall consist of the removal of large obstructions. Such obstructions are generally limited to fallen timber. Only that portion of timber that obstructs the footpath shall be removed. In cases of extensive fallen timber due to hurricanes, tornadoes, etc., it may be environmentally prudent either to close or reroute a footpath. Decisions in this regard are the responsibility of the Town. Surface water shall not be rerouted or drained for the purposes of footpaths.

6.5.3 CUTTING AND TRIMMING.

Cutting, trimming, or mowing of any rare plant or plant species of concern is prohibited. Primary consideration for cutting and trimming the vegetation on the site shall be given to the continued natural evolution of the site and the forest management goals and objectives of this plan.

7.0 PUBLIC AWARENESS.

7.1 Informational Leaflet.

An informational leaflet shall be compiled by the Town Forest Management Committee and published for general circulation throughout the Town. The leaflet shall be periodically updated by the Town as necessary. Copies of the leaflet shall be available at the Town Hall and other locations designated by the Town.

The leaflet shall describe the various natural features of the site and shall include a sketch map illustrating the location of footpaths and noteworthy natural features. A list of prohibited activities shall be included in the leaflet.

7.2 Posting and Parking

Information signs shall be posted at visible locations. These signs shall identify the site and acknowledge the financial assistance provided by the State of Rhode Island for acquisition of the property. Public access shall be acknowledged with the hours that the site is open and prohibited activities shall be listed.

The site access point, boundaries, and footpaths shall be clearly marked. That portion of the property that comprises a part of the Pawcatuck River shall be posted as described in Section 9.0.

The method, design, and materials for all signs and markings shall be compatible with the natural character of the site, shall be approved by the Town Forest Management Committee, and shall comply with Rhode Island Department of Environmental Management requirements.

8.0 SPECIES INVENTORY.

A breakdown of the general vegetation types as identified by the Rhode Island Department of Environmental Management Forester, is provided in Appendix C. A detailed inventory of plant and animal species shall be completed (See Section 10.0) in three phases. Each phase shall be associated with one of three geographical segments of the property. The species inventory shall be continuously updated. The Town shall solicit the assistance of specialists in plant and wildlife in this effort. This might include, for example, naturalists, Rhode Island DEM foresters and conservation officers, and representatives of the Rhode Island Natural Conservancy, and the Rhode Island Wildlife Plant Society.

8.1 COMMON PLANT SPECIES.

The forest overstory and understory plant species inventory shall be completed using a CFI (Continuous Forest Inventory) plot system. The center of each plot shall be permanently marked. For tree specimens, general dimensions, shall be recorded. For other common plant species, quality, health, damage, and a general estimate of quantity, shall be recorded.

8.2 PLANT SPECIES OF SPECIAL CONCERN.

This site contains many plant species that are listed on the R.I. Natural Heritage Program, "List of Species of Concern." It is a primary goal of this management plan to locate and inventory these species in order to insure their protection. Many of these species are in small quantity, in isolated locations. Use of the CFI system

would not be totally effective in establishing an inventory of such species. A separate survey of the entire site, therefore, shall be conducted in the three phases previously discussed.

8.3 ANIMAL SPECIES.

A number of animal species have been observed at the site. A more detailed inventory of these species shall be established. For bird species, this shall consist of surveillance during nesting periods for detection of audible and visible indications of the various species. Nesting areas shall be specifically identified.

The animal species inventory shall also be conducted coincidentally with other management activities (e.g. CFI inventory). If evidence of bird or mammal species if special concern is noted, an attempt shall be made to identify habitat (e.g. nesting areas) requiring special protection.

8.4 SHORELINE HABITAT.

The species inventory shall also include an extensive survey of the shoreline habitat. A significant part of this inventory shall have to be completed from the river by boat or canoe in order to minimize damage to the habitat. Plant and animal species shall be identified and recorded. Areas of high and low sensitivity shall be identified. The results of the shoreline survey shall be used, in part, for the practical location of vista points and footpaths.

9.0 SPECIAL PROTECTION CONSIDERATIONS.

A number of rare plant species exist at the site. Such species are sensitive to changes in environment and general human influence such as foot traffic. The shoreline of Pawcatuck River and its associated habitat, part of which comprises the northern edge of the site, are also vulnerable to human influences. The location and design of footpaths is critical. They shall therefore be progressively designed and located based upon the results of the species inventory (See Section 8.0) so that rare plant species may be observed but not endangered by foot traffic. A limited number of vista point shall be established on the shoreline, at low sensitivity locations determined from the shoreline that is suitable for the protection of the high water shoreline habitat. The shoreline shall be posted with signs, facing the river, informing boaters of the protected status of the site and prohibiting access from the river. Additional shoreline protection will be coordinated with other agencies.

10.0 MANAGEMENT PLAN SCHEDULE AND PERIODIC REVIEW.

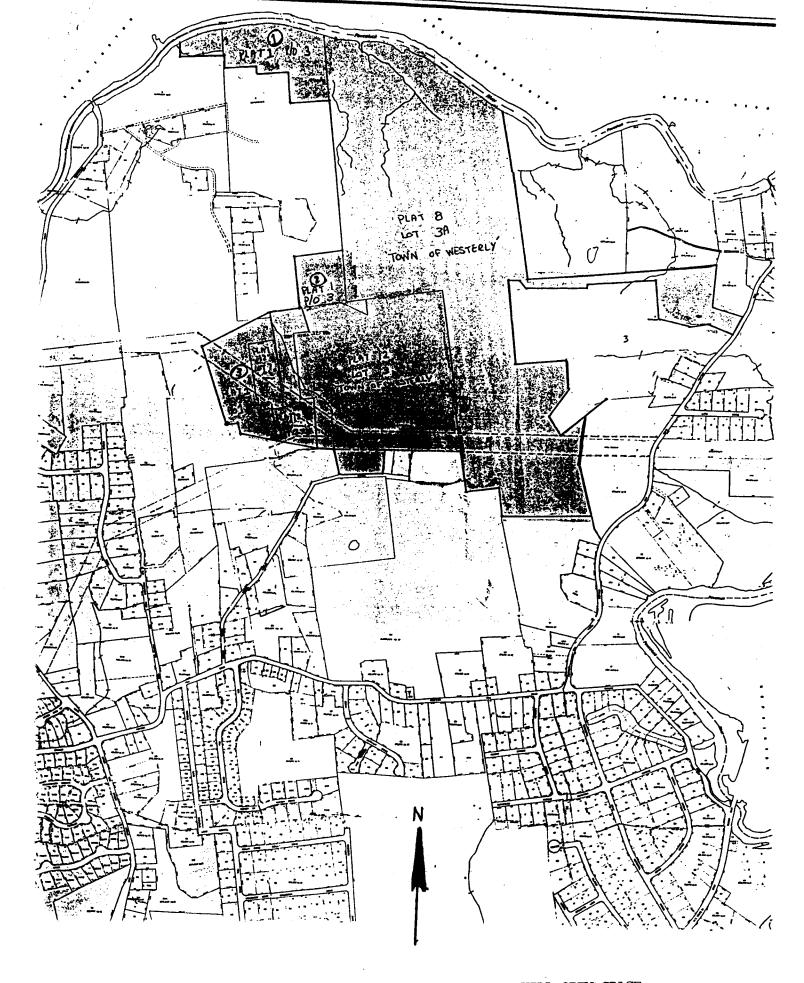
The Management Plan consists of a five-year program which include informing the general public of the existence of the site, establishing a site maintenance and surveillance routine, and completing the species inventory, footpaths, and marking/posting. Information pertaining to the site biological status, management activities, and management plan schedule shall also be reported at regular meetings of the Town Forest Management Committee. Reported items may or may not require resolution by the Town.

The Town Forest Management Committee shall meet on a monthly basis to implement the goals and objectives of this plan. The Committee shall conduct a general review of the site status on an annual basis. As a minimum, the following shall be included in the annual review.

- o Schedule update
- o Review of personnel or agencies involved in active management functions
- o Update of plant and animal species inventories
- o General overview of the natural evolution of the site
- o Identification of problem areas which may require changes in management methods

The Management Plan shall be modified at least once every five years, at which time a new five-year program shall be established. Plan modification shall be only for improvement in protecting the natural evolution of the site or for the purpose of expanding the site area for the goals and objectives of this plan.

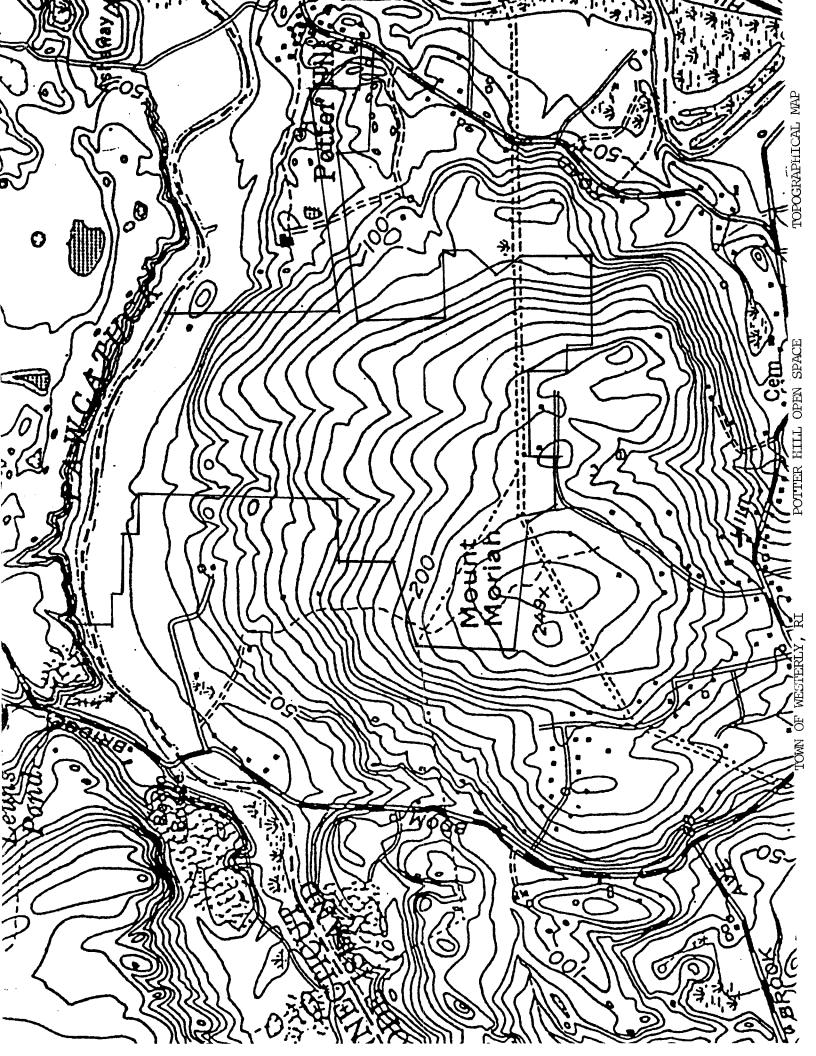
Appendis A Brogosty **S**



TOWN OF WESTERLY, RI

POTTER HILL OPEN SPACE

Appendix B
Tepegraphical Map



Appendix C Ferestry Plane



DIVISION OF FOREST ENVIRONMENT BRUCE PAYTON, SENIOR FORESTER DECEMBER 1988 Department of Environmental Management DIVISION OF FOREST ENVIRONMENT R. F. D. #2, Box 851 North Scituate, R.I. 02857

INTRODUCTION

This property has been established to maintain the open spaces in Rhode Island. This property and many others throughout the state have been set aside to maintain certain values at the time of their acquisition. This particular parcel has been selected because of its importance in the protection of the watershed of the Pawcatuck River. Though protection of this watershed is the primary importance of this property, it is a heavily forested area offering many other uses and values. This plan will mainly discuss the forested area and some of the values of this resource. This plan should only serve as a guide and should remain flexible to allow for changes in the effects of man and nature.

Stand MH¹

STAND COMPOSITION: Mixed Hardwoods

SPECIES: Red Oak, Red Maple, White Oak, Pignut Hickory, Sassafras

TOTAL BASAL AREA: 85 sq.ft./acre

TOTAL LIVE BASAL AREA: 75 sq.ft./acre

NUMBER OF STEMS/ACRE: 271

NUMBER OF LIVE TREES/ACRE: 240

AVERAGE DBH (LIVE): 6.7 inches MAJOR SOIL TYPE: Charlton (ChB)

SITE INDEX: (RO) 68 SSRI 65

STAND ANALYSIS:

This stand consists of mixed hardwoods, Red Oak, Red Maple, White Oak, Pignut Hickory, Sassafras and other hardwoods. The oaks predominate the overstory composing 73% of the basal area. Red Maple is the predominate species in the understory composing 66% of the understory basal area. This stand is well stocked and well suited to grow the hardwood species located on the site.

MANAGEMENT RECOMMENDATIONS:

This stand should be allowed to grow for the next five years until a reevaluation of the site should be performed. The stand should never be allowed to become overstocked as this may tend to decrease the vigor of the trees making them more susceptible to attack by insects and disease. A good mix of species should also be maintained so as to reduce the risk of the entire stand of trees being killed by a single specific forest pest. This type of manipulation may have to be in a harvest or timber stand improvement operation, therefore the existing trails should be kept open for future access.

Stand MH²

STAND COMPOSITION: Mixed Hardwoods

SPECIES: Red Oak, White Oak, Red Maple, Hickory, Black Birch

TOTAL BASAL AREA: 67 sq.ft./acre

TOTAL LIVE BASAL AREA: 54 sq.ft./acre

NUMBER OF STEMS/ACRE: 298 NUMBER OF LIVE TREES/ACRE: 225 AVERAGE DBH (live): 6 inches SITE INDEX: 64 (RO) SSRI 65

MAJOR SOIL COMPLEX: ChB (Charlton) SuB (Sutton)

STAND ANALYSIS:

This stand consists of mixed hardwoods; Red Oak, White Oak, Red Maple, Hickory, Black Birch and other hardwoods. The oaks predominate the overstory and are the most common species in the stand (72% of the live basal area). Black Birch and Red Maple predominate the understory basal area (56%). This stand was heavily cut 12 years ago, leaving only poorly formed trees in the larger diameter classes scattered throughout the stand making the major present component of the stand to be smaller stems from stump sprouting. An extremely heavy cover of greenbrier has also become well established.

MANAGEMENT RECOMMENDATIONS: This stand should be allowed to grow for the next 5 years until a reevaluation of the site should be performed. The only exception might be to cut some of the poorly formed Red Maple, small pole-sized trees to promote new stump sprouting for browse. This stand will take the most time to regenerate into a mature forest and care must be taken to promote healthy trees while maintaining a broad mix of species. The stand is presently well stocked, but should never be allowed to become overstocked.

Stand MH³

STAND COMPOSITION: Mixed Hardwoods

SPECIES: White Oak, Red Oak, American Beech TOTAL BASAL AREA: 80 sq.ft./acre TOTAL LIVE BASAL AREA: 46 sq.ft./acre NUMBER OF STEMS/ACRE: 171 NUMBER OF LIVE TREES/ACRE: 89 AVERAGE DBH (LIVE): 8.9 SITE INDEX: 58 (RO) SSRI 52 MAJOR SOIL COMPLEX: CeC (Canton)

STAND ANALYSIS:

This stand is understocked and consists of mixed hardwood; White Oak, Red Oak and some scattered pockets of Beech. The oaks predominate the overstory except in the patches of Beech. The stand is quite open, lacking a major understory except in the area of beech where regeneration of the beech is quite prevalent. The terrain is quite rocky with rock outcrop scattered throughout. This

stand has been cut repeatedly and recently (within the last year). This stand has extensive mortality within the stand and poorly formed trees, mostly White Oak.

MANAGEMENT RECOMMENDATIONS: The present species growing on this site, White Oak and Red Oak, are poorly suited and will not maintain a healthy forest in this soil type and therefore the stand should be converted to White Pine. Conversion of the site should be scheduled to match area resources; planting stock, time, personnel for planting, planning, etc. An underplanting should be carried out over the next five years, planting 2-5 acres/year with a minimum of 250 seedlings (2-0 stock) planted per acre. Spring planting is recommended. A list of planting stock material and planting technique is included in the Town Forest Packet accompanying this plan.

Stand HS4

STAND COMPOSITION:

Hardwood Swamp

SPECIES: Red Maple, White Oak, White Ash, Red Oak TOTAL BASAL AREA: 78 sq.ft./acre TOTAL LIVE BASAL AREA: 71 sq.ft./acre NUMBER OF STEMS/ACRE: 200 NUMBER OF LIVE TREES/ACRE: 197 AVERAGE DBH (LIVE): 7.1 inches SITE INDEX: (RO) 56 SSRI 57 MAJOR SITE COMPLEX: Rf Ridgebury

STAND ANALYSIS:

This stand consists of hardwood swamp species; Red Maple, White Oak, White Ash and scattered Red Oak. Red Maple is the predominate species(in both the understory and overstory) consisting of 65% of the basal area. Some scattered cutting along the southern bound of this stand has produced scattered pockets of saplings and small poles of Red Maple and some Black Birch. The major part of this stand is well stocked with some scattered White Oak mortality in the codominant canopy. The terrain is rolling with several flowage areas scattered throughout. The stand lacks conifer species though some Atlantic White Cedar are scattered throughout the stand.

MANAGEMENT RECOMMENDATIONS: This stand is the major protective area of the ground-water flowage through this area. Any timber harvesting should be carefully supervised by a forester to prevent possible sediment pollution in flowage areas. Never should more than 50% of the basal area be removed near any flowage nor should the basal area ever be below 50 sq.ft./acre. At present the stand is well-stocked and has 3-4 large cull and dead stems/acre, which should be sufficient for cavity/den sites. Most oak species in the stand are codominant and have crowded crowns that should be released to increase most production.

A comprehensive wildlife habitat analysis should be carried out in this stand, especially along the Pawcatuck River. After this analysis, the area should be studied to increase various types of habitat through harvesting, girdling and topping of trees. If any clear-cutting for wildlife habitat is to be carried out, careful considerations for good tree form and crown development should be considered to maintain windfirm trees in this high water table area.

GENERAL RECOMMENDATIONS

Many test pits, perk tests and roughed out roads have been established throughout the property. The test pits should be filled in and brought back to the original grade. The perk test sites should be restored to a natural state and all pipes removed from the property. The roughed out roads should be seeded in on those sites that have not re-established ground cover. At locations where roads have crossed flowage areas, some type of sediment control structure should be established to prevent siltation of the flowage. The roughed out roads should be mapped and those that may be used for nature trails and future logging roads should be maintained. (see enclosed booklet, "Permanent Logging Roads for Better Woodlot Management.")

Establishment of a Town Forest should be attained for this parcel to demonstrate the values of forested open space to the general public and to establish an educational resource for the community.

Reevaluation of this property should be carried out in the next five years by a multidisciplinary Environmental Review Team, local and town officials with concerns about the area and management recommendations evaluated.

Some smaller forest type units exist on the property, but because of their size are not mentioned as Management Areas. One critical type is the Atlantic White Cedar Stand located in the southern part of STAND MH2. This is a terrestrial Community: White Cedar Cover Type. Stands such as these should be identified over the next five (5) years and specific management goals set for each. To maintain a Cedar Cover Type of this nature requires pocket clearcut to regenerate the species.

APPENDIX A : STAND INVENTORIES

Age= 60, cycle= 0, stand site index= 68.0.

	Live	BA/	Avg	-		t	Morta	lity
Species Gr.	Tree/Ac	Acre	DBH		Tree/Ac	BA/Ac	Tree/Ac	BA/Ac
Red maple	72	10.0	4.8	0.00	0	0.0	0	0.0
White oak	16	15.0	12.8	0.00	0	0.0	0	0.0
A.red oak	82	39.9	8.9	0.00	0	0.0	0	0.0
Hickory	14	5.0	8.0	0.00	0	0.0	0	0.0
Other hard	57	5.0	4.0	0.00	0	0.0	0	0.0
Totals	240	74.9	6.7	0.00	0	0.0	0	0.0

CAI = Current Annual Increment.

Board foot volumes in International 1/4 inch.

Volumes:	Sawti	mber	Pul	boowq	Residue	
Species Gr.	cuft	bdft	cuft	cords	cuft	tons
Red maple	0	0	75	1.0	182	4.4
White oak	99	618	104	1.3	169	4.9
M.red oak	200	1249	439	5.6	385	11.8
Hickory	0	0	95	1.2	48	1.5
Other hard	0	0	0	0.0	131	3.3
Totals	299 -	1867	712	9.0	915	25.8

Note:

- Definition of tree classes:
 - 20 = acceptable growing-stock, 30 = undesirable growing-stock, 40 = cull.
- Sawtimber is expressed in cuft and bdft for acceptable growing-stock trees with a DBH >= 9" to 7" top DOB (softwood) or with a DBH >= 11" to 9" top DOB (hardwood).
- Pulpwood is expressed in cuft and cords for acceptable growing-stock trees with a DBH >= 5" to 4" top DOB, excluding sawlog portion. Pulpwood also includes undesirable growing-stock trees with a DBH >= 5" to 4" top DOB, including sawlog portion. Cords are cuft of pulpwood/79.
- Growing-stock volume is expressed in cuft for all growing-stock trees with a DBH >= 5" to 4" top DOB.
- Residue includes top and limbs < 4" DOB to a 1" diameter, trees less than 5" DBH, and cull trees.

Report for stand "MH2". Year= 1988. Initial conditions.

Age= 50, cycle= 0, stand site index= 64.0.

	Live	BA/	Avg DBH	Avg CAI	Cu	Cut		Mortality	
Species Gr.	Tree/Ac	Acre			Tree/Ac	BA/Ac	Tree/Ac	BA/Ac	
Red maple	30	5.0	5.1	0.00	0	0.0	0	0.0	
White oak	5 2	19.6	7.9	0.00	0	0.0	0	0.0	
M.red oak	64	19.0	6.8	0.00	0	0.0	0	0.0	
Hickory	18	3.0	5.1	0.00	0	0.0	0	0.0	
Other hard	60	7.0	4.4	0.00	0	0.0	0	0.0	
Totals	225	53.6	6.0	0.00	0	0.0	0	0.0	
++++++++++			والحداث المحاجب المحاجب		****	فالمستقب المستقيلة والمستقدة			

CAI = Current Annual Increment.

Board foot volumes in International 1/4 inch.

Volumes:	Sawti	mber	Pul	pwood	Residue	
Species Gr.	cuft	bdft	cuft	cords	cuft	tons
Red maple	0	0	50	0.6	83	2.0
White oak	. 0	0	295	3.7	182	5.3
M.red oak	102	651	193	2.4	195	6.0
Hickory	0	0	35	0.4	39	1.2
Other hard	18	110	25	0.3	152	3.8
Totals	120	762	598	7.6	651	18.3

Note:

- Definition of tree classes:
 - 20 = acceptable growing-stock, 30 = undesirable growing-stock, 40 = cull.
- Sawtimber is expressed in cuft and bdft for acceptable growing-stock trees with a DBH >= 9" to 7" top DOB (softwood) or with a DBH >= 11" to 9" top DOB (hardwood).
- Pulpwood is expressed in cuft and cords for acceptable growing-stock trees with a DBH >= 5" to 4" top DOB, excluding sawlog portion. Pulpwood also includes undesirable growing-stock trees with a DBH >= 5" to 4" top DOB, including sawlog portion. Cords are cuft of pulpwood/79.
- Growing-stock volume is expressed in cuft for all growing-stock trees with a DBH >= 5" to 4" top DOB.
- Residue includes top and limbs < 4" DOB to a 1" diameter, trees less than 5" DBH, and cull trees.

Age= 50, cycle= 0, stand site index= 58.0.

	Live Tree/Ac	BA/	Ava	Avg CAI	Cut		Mortality	
Species Gr.		Acre	DBH		Tree/Ac	BA/Ac	Tree/Ac	BA/Ac
White oak	52	29.9	9.8	0.00	0	0.0	0	0.0
A.red oak	12	12.0	13.1	0.00	0	0.0	0	0.0
Other hard	25	4.0	4.8	0.00	0	0.0	0	0.0
Totals	89	45.9	8.9	0.00	 0 +++++++	0.0	0	0.0

CAI = Current Annual Increment.

Board foot volumes in International 1/4 inch.

Volumes:	Sawti	mber	Pul	pwood	Residue	
Species Gr.	cuft	bdft	cuft	cords	cuft	tons
White oak	68 68	436 436	439 162	5.6 2.0	297 125	8.6
Other hard	0 	. 0	33	0.4	74	1.8
Totals	137	871	634	8.0	496	14.3

Note:

- Definition of tree classes:
 - 20 = acceptable growing-stock, 30 = undesirable growing-stock, 40 = cull.
- Sawtimber is expressed in cuft and bdft for acceptable growing-stock trees with a DBH >= 9" to 7" top DOB (softwood) or with a DBH >= 11" to 9" top DOB (hardwood).
- Pulpwood is expressed in cuft and cords for acceptable growing-stock trees with a DBH >= 5" to 4" top DOB, excluding sawlog portion. Pulpwood also includes undesirable growing-stock trees with a DBH >= 5" to 4" top DOB, including sawlog portion. Cords are cuft of pulpwood/79.
- Growing-stock volume is expressed in cuft for all growing-stock trees with a DBH >= 5" to 4" top DOB.
- Residue includes top and limbs < 4" DOB to a 1" diameter, trees less than 5" DBH, and cull trees.

Report for stand "HS4". Year= 1988. Initial conditions. Age= 50, cycle= 0, stand site index= \$6.0.

	Live Tree/Ac	BA/	Avg DBH	Avg CAI	Cut		Mortality	
Species Gr.		Acre			Tree/Ac	BA/Ac	Tree/Ac	BA/Ac
Red maple	156	46.2	6.3	0.00	0	0.0	0	0.0
White ash	8	7.5	12.8	0.00	0	0.0	0	0.0
White oak	30	13.8	8.9	0.00	0	0.0	0	0.0
N.red oak	3	3.8	15.2	0.00	0	0.0	0	0.0
Totals	197	71.3	7.1	0.00	 0 +++++++	0.0	0	0.0

CAI = Current Annual Increment.

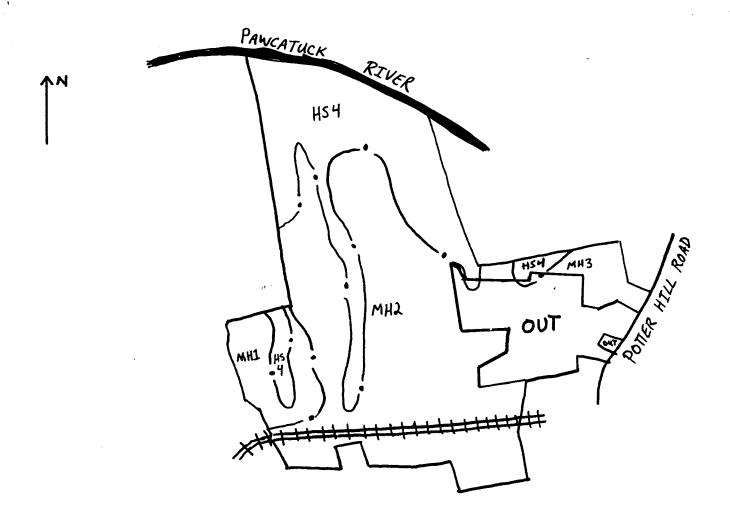
Board foot volumes in International 1/4 inch.

Volumes:	Sawti	mber	Pul	pwood	Residue	
Species Gr.	cuft	bdft	cuft	cords	cuft	tons
Red maple White ash White oak M.red oak	356 74 40 50	2230 456 259 309	371 72 187 28	4.7 0.9 2.4 0.4	590 84 132 41	14.4 2.0 3.8 1.3
Totals	519	3254	658	8.3	847	21.4

Note:

11

- Definition of tree classes:
 - 20 = acceptable growing-stock, 30 = undesirable growing-stock, 40 = cull.
- Sawtimber is expressed in cuft and bdft for acceptable growing-stock trees with a DBH >= 9" to 7" top DOB (softwood) or with a DBH >= 11" to 9" top DOB (hardwood).
- Pulpwood is expressed in cuft and cords for acceptable growing-stock trees with a DBH >= 5" to 4" top DOB, excluding sawlog portion. Pulpwood also includes undesirable growing-stock trees with a DBH >= 5" to 4" top DOB, including sawlog portion. Cords are cuft of pulpwood/79.
- Growing-stock volume is expressed in cuft for all growing-stock trees with a DBH >= 5" to 4" top DOB.
- Residue includes top and limbs < 4" DOB to a 1" diameter, trees less than 5" DBH, and cull trees.



MH1 : MIXED HARDWOODS : # 23 ACRES

MH2: MIXED HARDWOODS: ±110 ACRES

MH3! MIXED HARD WOODS: \$10 ACKES

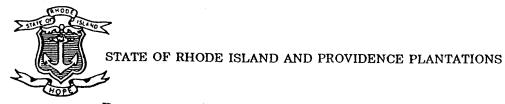
MH4: HARD WOOD SWAMP : ±62 ACRES

total 205 ACRES

~ · ~ STAND BOUND

UTILITY LINE R.D.W.

SCALE: 1"= 1000'



Department of Environmental Management DIVISION OF FOREST ENVIRONMENT 1037 Hartford Pike North Scituate, R.I. 02857 (401) 647-3367

FOREST MANAGEMENT PLANS for TOWN of WESTERLY

These forest management plans have been developed to provide technical advice to the Town of Westerly for the three parcels of land being purchased from John Moran. Multiple use management, which includes wildlife, watershed, recreation, environmental education, along with forest management practices, are the objectives for this property. These plans should only serve as a guide and should remain flexible. These plans should be reviewed every five years to allow for changes in the town's objectives and the effects of man and nature on the property.

The Town of Westerly, along with funds made available from the state through the Open Space Grant Program, is purchasing three different parcels of land which are approximately 47 acres in size. These parcels will be added to the adjacent 200 acres of Open Space land the town already owns. The intent of the Open Space Program is to keep parcels of land in the open space and undeveloped categories and to actively manage those lands for multiple use. These management plans will help to insure that the designated Open Space Property will be kept in perpetuity as Open space land, preserving its' ecological and scenic values.

These parcels have been selected to be incorporated into the open space program, to help protect the Pawcatuck watershed, increase the area of the existing open space property and to provide a larger contiguous forested land for wildlife habitat and passive recreation. State Foresters, along with private consulting foresters when needed, will provide technical advice to cities and towns in implementing forest management activities. State foresters will be establishing continuous forest inventory (CFI) plots, which will be located through out the property. These plots will be reinventoried every five years to record the growth and health of theses forested areas. These plots will be permanent, but will not alter management activities or objectives.

Included you will find a glossary to help understand the different technical terms used, a map and forest management plan for each parcel, a locus map of the parcels and a soils map delineating the different soils types that occur. At the end of the management plans are some general recommendations for the properties being purchased.

TOWN of WESTERLY
Forest Management Plan
for lot #1 of the
Open Space land being purchased from John Moran

This parcel is approximately 15 acres in size and is located south of the Pawcatuck River, west of Westerly's Potter Hill Open Space property, north of Havens Road and 300 feet east of Broom Bridge Road.

There are two different forest types, small sections of open fields, a roughed out road, standing water and a stream that flows west to east and empties into the Pawcatuck River.

STAND HS-1

Stand Composition Hardwood Swamp

Species: White Oak, Red Maple, Black Oak, White Ash

Red Oak, Black Tupelo, Black Birch

Total Basal Area: 97 sq.ft./ acre

Acceptable growing stock: 26 sq.ft./acre

Total Number of trees/acre: 352 trees/acre

Number of Live trees/acre: 308 trees/ acre

Percent Stocking: 90%

Average D.B.H.: 7"

B-level Stocking: 63 sq.ft./190trees/acre

Major Soil Type: Wa Walpole sandy loam

Ru Rumney fine sand loam

Site Index: 63 Red Maple (RISS)

DESCRIPTION:

This stand is approximately 10 acres in size consisting of 74% Red Maple, 2% Black Oak, 1% White Oak, 9% Red Oak, 1% Black Birch, 4% White Ash and 8% Black Tupelo. Twenty six percent of the standing trees are of acceptable growing stock. The understory vegetation consists of Briers, Red Maple saplings and sprouts, Sweetpepper Bushes, Moss, Witch Hazel and Skunk Cabbage. There are pockets of standing water along with a stream that flows west to east and empties into the Pawcatuck River. The stand is located south of Mixed Hardwood-2 stand, north and east of the pastures and west of Potter Hill Open Space land.

RECOMMENDATIONS:

This stand is presently overstocked and is in need of a thinning and improvement cuttings. Remove about 40% of the trees taking the dead, deformed and poorly growing ones first. However, due to the wetness of the stand these practices should be done during dry periods, when the ground is frozen or when snow covered. Before proceeding with any logging operation, contact the division of Forest Environment and The Division of Fresh Water Wetlands for proper procedures and correct locations for crossing through the stream and Hardwood Swamp. Some guides that should be followed are: Cross the stream at right angles, spacing out crossings to at least every 150 feet. Try to cross the stream where rocks or stones make up the stream bed; if there isn't any of these areas, put tops (branches) in the water (removing them after work is completed). Where the stream banks are slightly sloping, remove any branches that fall into the stream. Leave a buffer strip of about 50 feet along the stream where a limited amount of cutting is to be done.

Leave a few snags or wolf trees for wildlife nesting and for food sources. Additional nesting areas can be made by making piles from the slash. To increase food for wildlife cut some Red Maple trees which will then sprout producing succulent new branches that can be eaten.

STAND MH 2

Stand Composition Mixed Hardwood

Species: Black Oak, Red Oak, White Oak, Red Maple,

Black Tupelo, BigTooth Aspen, Beech

Total Basal Area: 100 Square Feet/Acre

Acceptable Basal Area: 53 Square Feet/Acre

Total Number of Trees/acre: 182 Trees/Acre

Live Trees Per acre: 170 Trees/Acre

Average Diameter: 10" DBH

Percent Stocking: 88%

B-Level Stocking: 67 Sq.Ft./130 Trees/ Acre

Major Soil Type: Pp Poduck fine sandy loam

Ru Rumney fine sandy loam

Site Index: 63 (Red Oak)

DESCRIPTION:

This parcel is approximately 4.5 acres in size consisting of 47% Red Oak, 28% Black Oak, 5% White Oak, 9% Red Maple, 3% Black Tupelo, 1% BigTooth Aspen and 5% Beech. Fifty three percent of the standing timber is of acceptable growing stock. The understory vegetation consist of Mountain Laurel, Vacciniums (berries), Briers and Oak sprouts and saplings. There is a rough out road that runs west to east paralleling the Pawcatuck River. The stand is located north of the stream and the Hardwood Swamp-1 stand, south of the Pawcatuck River and west of the Potter Hill Open Space Land.

RECOMMENDATION:

To improve the health, vigor and the quality of the residual trees and to receive some wood products (firewood and Sawlogs) a selective harvesting is needed. Remove about 30% of the basal area, taking the dead, deformed, poorly growing trees and trees that are larger than 16"DBH first. Since this is a good quality site for growing Hardwoods, a Site Preparation (removal of competing vegetation) and planting of Hardwood species (White Ash, Hickories, Basswood and Oaks) should be done. The Site Preparation should be done during the Selective harvest operation.

The roughed out road should be used when doing the logging operations. Before beginning any logging operations contact The Division of Forest Environment and The Division of Fresh Water Wetlands for technical advise. Take care when crossing through the HS-1 stand as not to degrade the stream. Place either Hay bales or silt fencing downstream to reduce the degradation of the water. Place a corduroy road were the skidder crosses the stream. When the logging operation is done, the road should be put back as close as possible to original grade and reseeded with ground cover(grasses) to help reduce erosion.

Leave a few large snags for wildlife use as nesting and food sources. Make some slash piles for additional nesting areas for wildlife. Leave the dense areas of Mountain Laurel, since they provide cover for animals and birds. Since Beech trees provide good food and nesting areas for a variety of animals and birds; where possible should be left alone.

PURCHASED FROM JOHN MORAN OPEN SPACE PROPERTY TOWN OF WESTERLY 1 * L07

HS-I HARDWOOD SWAMP N/F TOWN OF WESTERLY 10 ACRES FOREST TYPES **FS-**MH-2 HS-I RIVER PAWCATUCK MH-2 HS-1 STAND BOUNDARIES PROPERTY LINES STONE WALLS ROUGH ROAD OLD FENCE LEGEND STREAM || || || 8 ×-×

MH-2 MIXED HARDWOOD

45ACRES O-3 PASTURES

SACRES TOTAL ACRES 15.0

DRAWN BY: JAY B. ARON 3/20/90

SCALE 1"- 300

TOWN of WESTERLY Forest Management Plan

for lot #2 of the Open Space land being purchased from John Moran

This parcel is approximately 5 acres in size and is located in the western corner of the former Bellucci property and along the northern boundary of the former Matheson's property, both of which are now part of the Potter Hill Open Space Land.

There are two different forest types, a small stream that flows south to north that empties into the Pawcatuck River, stone walls and a roughed out road along the southern and eastern boundaries.

Stand HS-1

Stand Composition: Hardwood Swamp

Species: Red Maple, White Pine, Atlantic White Cedar

Red Oak, Black Tupelo, Yellow Birch

Total Basal Area: 75 sq.ft./ acre

Acceptable growing stock: 20 sq.ft./acre

Live Trees Per Acre: 145 trees/acre

Total Trees Per Acre: 165 trees/acre

Percent Stocking: 68%

Average D.B.H.: 9" DBH

B-level Stocking: 67 sq.ft./135trees/acre

Major Soil Type: Rf Ridgebury extremely

stony fine sandy loams

Site Index: 53 Red Maple

DESCRIPTION:

This stand is approximately 3 acres in size consisting of 48% Red Maple, 8% Black Tupelo, 24% Yellow Birch, 3% White Pine, 3% Red Oak and 3% Atlantic White Cedar. Twenty six percent of the standing trees are of acceptable growing stock. The understory vegetation consists of Briers, Red Maple saplings and sprouts, Sweetpepper bushes and Moss. There is a stream that flows south to north along with areas of standing water and rock outcrops. The stand is located north of a roughed out road and west of Mixed Hardwood-2 stand.

RECOMMENDATIONS:

An improvement cutting should be done in this stand but due to the wetness, extreme caution should be used when working in this area. Any work that is to be done should be carried out during dry periods when the ground is frozen or when snow covered. Before proceeding with any logging operations contact The Division of Forest Environment and The Division of Fresh water Wetlands for technical assistance. Remove about 20 % of the basal area, taking the dead, deformed and poorly growing trees first.

This stand makes an excellent wildlife area. To improve nesting and food sources the following should be done: girdling some of the larger poorer growing trees whichwill provide food sources and den trees for wildlife. Cut some of the of Red Maple sprouts, this will provide new succulent growth for wildlife to feed on. Make slash piles for additional nesting areas.

١.

STAND MH 2

Stand Composition Mixed Hardwood

Species: Black Oak, Red Oak, Black Birch,

Yellow Birch

Total Basal Area: 55 Square Feet/Acre

Acceptable Basal Area: 30 Square Feet/Acre

Number of live Trees: 80 Trees/Acre

Total Number of Trees: 88 Trees/ Acre

Average Diameter: 10" DBH

Percent Stocking: 48%

B-Level Stocking: 68 Sq.Ft./ 120 Trees/Acre

Major Soil Type: ChB Canton and Charlton

Very Stony Fine Sand Loam

Site Index: 50 (Red Oak)

DESCRIPTION:

This parcel is approximately 2 acres in size consisting of 27% Black Oak, 36% Red Oak, 18% Yellow Birch and 18% Black Birch. Fifty four percent of the standing timber is of acceptable growing stock. The understory vegetation consist of Briers, Vacciniums (berries), saplings and sprouts of Black Birch and Oak and White Pine saplings. A roughed out road run south to north and stone walls are along the eastern and southern borders. Potter Hill Open Space land lies to the north and east and Hardwood Swamp-1 lies to the west.

RECOMMENDATION:

This stand is currently understocked due to a recent logging operation. Two courses of action can be taken at this time in helping to improve health and quality of the stand in the future. One is to leave it alone for five years, then come in and do an improvement and release cuttings favoring future crop trees. The second option is to do a site preparation and to do an underplanting. The second option would create a greater diversity of species of trees and put the stand in a more productive and healthier status sooner the option one. Some trees to plant would be White Pine, Pignut Hickory, White Spruce and Red Oak. To create a greater diversity of wildlife habitats, girdle some of the poorest quality large diameter trees and make slash piles.

ž

MARCH 20, 1990 JAY B. ARON

DRAWN BY:

SCALE 1"-200'

2 ACRES TOTAL ACRES 5

MH-2 MIXED HARDWOOD

3 ACRES HS-I HARDWOOD SWAMP

FOREST TYPES

N/F TOWN OF WESTERLY HS-1 12-1

N/F TOWN OF WESTERLY

PURCHASED FROM JOHN MORAN

TOWN OF WESTERLY OPEN SPACE PROPERTY 7 ± 107

STAND BOUNDARIES PROPERTY LINES LEGEND

ROUGH ROAD STREAM

STONE WALLS 88

TOWN of WESTERLY Forest Management Plan

4

for lot #3 of the Open Space land being purchased from John Moran

This parcel, approximately 27 acres in size, is located about 2500 feet along a dirt road which runs off of Havens Road. Location is south of the electric company's ROW and a stone wall, west of the former Matheson's property (now part of Potter Hill Open Space Land), and east and north of private landowners, property.

There are four different forest types, stone walls, electric company's ROW, a 6 acre open field, and a dirt road that runs north to south. Mount Moriah, which is located within this parcel, is one of the highest elevations in Westerly. According to the topographic map the peak is located along the southern part of the open field.

STAND MH 1

Stand Composition Mixed Hardwood

Species: Black Oak, Red Oak, White Pine, Black Birch

Total Basal Area: 78 Square Feet/Acre

Acceptable Basal Area: 53 Square Feet/Acre

Number of Live Trees: 159 Trees/Acre

Total Number of Trees: 190 Trees/Acre

Average Diameter: 8" DBH

Percent Stocking: 73%

B-Level Stocking: 68 Sq.Ft./ 155 Trees/Acre

Major Soil Type: ChB

gravelly sandy loam

Site Index: 63 (Red Oak)

DESCRIPTION:

This parcel is approximately 8 acres in size consisting of 38% Black Oak, 55% Red Oak, 4% Black Birch and 1% White Pine. Sixtyseven percent of the standing timber is of acceptable growing stock. The understory vegetation consist of Vacciniums (berries), Mountain Laurel, White Pine seedlings and saplings, saplings and sprouts of Oak, Beech, Black Birch and American Chestnut. This stand was recently selectively harvested. There is an electric company's power line ROW that runs through this stand. The stand is located north of an open field and a stone wall, east of Mixedhardwood-4 stand, west of Potter Hill Open Space land and south of private property and a stone wall.

RECOMMENDATION:

This stand was just recently harvested and should be allowed to grow for the next five years. At that time a reevaluation should be done to determine what sivicultural practices should be prescribe.

To help improve the wildlife habitat and food sources in this stand, the following things should be done: girdle some of the larger poorer growing trees for nesting sites. Cut some poorer quality Black Birch, it will produce new succulent branches for food. Make piles from the slash for addtional nesting areas.

STAND MH-2

Stand Composition Mixed Hardwood

Species: Black Oak, Red Oak, White Oak, Black Birch,

White Pine, Beech

Total Basal Area: 75 Square Feet/Acre

Acceptable Basal Area: 43 Square Feet/Acre

Number of Live Trees: 160 Trees/Acre

Total Number of Trees: 200 Trees/Acre

Average Diameter: 9" DBH

Percent Stocking: 68%

B-Level Stocking: 63 Sq.Ft./ 170 Trees/Acre

Major Soil Type: ChB Canton and Charlton

Very Stony Fine Sandy Loams

Site Index: 51 (Red Oak)

DESCRIPTION:

This parcel is approximately 7 acres in size consisting of 46% Black Oak, 37% Red Oak, 2% White Oak, 6% Beech, 2% White Pine and 6% Black Birch. Fiftyseven percent of the standing timber is of acceptable growing stock. The understory vegetation consist of Mountain Laurel, Vacciniums (berries), saplings and sprouts of Black Birch, Oaks and Beech and White Pine saplings and seedlings. The stand is located south of the electric companies ROW, west of the Mixedhardwood-5 stand, the open field and a dirt road, north of Mixedhardwood-4 stand and east of an abutting property owner. Along the western property line is a small grove of Beech.

RECOMMENDATION:

To improve the health, vigor and the quality of the residual trees an improvement cutting is needed. Remove about 20% of the basal area, taking the dead, deformed and poorly growing trees first. Scarifying the soil when working in this stand will facilitate the natural regeneration of White Pine.

Leave a few large snags for wildlife use as nesting and food sources. Make some slash piles for additional nesting areas for wildlife. Cut some of the poorer quality Black Birch and Beech to produce new sprouts and additional food for wildlife.

STAND MH-3

Stand Composition Mixed Hardwood

Species: Black Oak, Red Oak, Black Birch, Pin Cherry

Total Basal Area: 35 Square Feet/Acre

Acceptable Basal Area: 5 Square Feet/Acre

Number of Trees: 155 Trees/Acre

Average Diameter: 4" DBH

Percent Stocking: 45%

B-Level Stocking: 48 Sq.Ft./ 450 Trees/Acre

Major Soil Type: ChB Canton and Charlton

very stony fine sandy loams

Site Index: 52 (Red Oak) RISS

DESCRIPTION:

This parcel is approximately 1.5 acres in size consisting mostly of Black Oak and Red Oak saplings. Fifteen percent of the standing timber is of acceptable growing stock. This stand was heavily cut, leaving coppice regeneration and clusters of oak sprouts. The understory vegetation consist of Vacciniums (berries), Briers, White Pine seedlings and saplings, Clusters of Oak sprouts and saplings, Briers and Brambles. The stand is located west of the open field, south and east of Mixed Harwood-2 stand and north of a roughed out road.

RECOMMENDATION:

This stand should be allowed to grow for another five years. At which time a reevaluation should be done to determine what silvicultural practices should be prescribed.

STAND MH-4

Stand Composition Mixed Hardwood

Species: Black Oak, Red Oak, Red Maple, Pin Cherry

White Pine, Poplar

Major Soil Type: ChB Canton and Charlton

Very Stony Fine Sandy Loams

4

, b

Site Index: 52 (Red Oak) RISS

Size: 5 Acres

DESCRIPTION:

The vegetation on this stand consists of Vacciniums (berries), Mountain Laruel, sprouts and saplings of Oak, Poplar, Pin Cherry and sprouts and saplings of White Pine.

RECOMMENDATION:

This area was heavily logged and should be allowed to grow for another five years at which time a reevaluations should be done to determined what silvcultural practices should be performed.

Stand Open Field-5

Size: 6 Acres

Soil Type: Canton and Charlton

Very Stony Sandy Fine Loams

DESCRIPTION:

The vegetative cover consists of grasses, fescues, Staghorn Sumac, Pin Cherry and Bigtooth Aspen. The terrain consists of many man made mounds of top soil, makeing agricultural use of this field impractical unless these mounds are leveled.

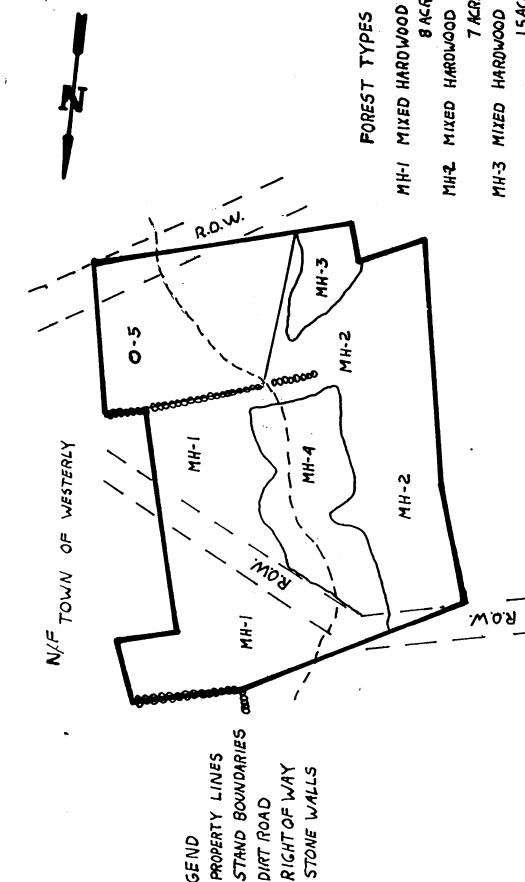
RECOMMENDATION:

To maintain and perpetuate this type of vegetative cover, a prescibe burn should be done every five years. In area that are easliy workable, some wildlife patches can be planted.

OPEN SPACE PROPERTY TOWN OF WESTERLY

LOT #3

PURCHASED FROM JOHN MORAN



STONE WALLS RIGHT OF WAY

DIRT ROAD

LEGEND

DRAWN BY. JAY B. ARON

SCALE 1-300

6 ACRES

O-5 FIELDS

TOTAL ACRES

S ACRES

MH-4 MIXED HARDWOOD

L5 ACRES

7 ACRES

GENERAL RECOMMENDATION

- 1. Mark, locate and maintain property lines.
- Maintain paths, roads and trails for fire protection 2. and recreational benefits. To reduce erosion put in water diversion devises and plant some ground cover vegetation. To reduce liability problems remove blow downs that are across the paths, dead trees that over hang the rough out roads and paths and bring these roads back to original grade. For more information on what type of ground cover to plant, contact the Southern Rhode Island Conservation District Office at 539-7767. These trails can be incorporated with the Potter Hill Open Space property's trail system to create a larger network for passive recreation and for environmental education programs. A booklet on "Permanent Logging Roads for Better Woodlot Management" is and pamphlets on how to build water bars are enclosed.
- 3. The rough road that runs parallel to the Pawcatuck River in lot one should receive specially attention due to its' closeness to the river. Areas that are to be made into scenic view should be graded and reseeded to minimize erosion and degradation of the River.
- 4. A multidisciplinary Environmental Review Team must review this property within the next five years to determine if there are any critical areas or any endangered species of plants or animals that may exists.
- 5. Enclosed are pamphlets on "Red Maple Swamp Management" and " Thinning for crop tree release".
- Contact The Division of Forest Environment for assistance in proper planning of Timber Stand Improvements or Timber sale operations.